Engineering Specification

SPEC,APPVL INST 2200 IECEx ZN2
EB-20012525
Revision: AA
Number of Pages: 5
Comments:

THIS COMPONENT MUST COMPLY WITH REGULATORY AGENCY REQUIREMENTS. NO CHANGES ARE ALLOWED WITHOUT PRIOR AUTHORIZATION FROM APPROVALS ENGINEERING.

Originator: RCS 6/27/08
Approved: RCS 6/27/08

Rev	ECN	Description	Approval	Date
A	1035856	Release	RCS	6/27/08
AA	1038207	Added Output Option Codes 5 and 6 for Wireless HART	RCS	6/25/09

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Subject: Equipment type	**Transmitter type 2200S*****3****	
Manufactured and submitted for examination	**Micro Motion, Inc.**	
Address	**Boulder, Co. 80301, USA**	
Standard basis	IEC 60079-15:2005	non sparking ´n´
Code for type of protection	**Ex nA IIC T4**	
Certificate of Conformity	IECEx BVS 08.0042 X	

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1) Subject and Type

Transmitter type 2200S*****3****

Instead of the *** in the complete denomination letters and numerals will be inserted which characterize the following variations:

Type 2 2 0 0 S * * * * * 3 * * * *

- Options without influence on explosion protection
- Approval
  3 = IECEx Zone 2
- Letter for conduits
- Display Options
  1 = Dual Line Display
- IO Terminations
- Output Options
  H = One 12-20mA with HART [Loop Power]
  K = One 4-20mA with HART [Loop Power], supplied with Level Shifting Power Supply (Model 505)
  5 = One 12-20mA with HART [Loop Power] Wireless HART
  6 = One 4-20mA with HART [Loop Power], supplied with Level Shifting Power Supply (Model 505) Wireless HART
- Letter for mounting
  I = Integral Mount Transmitter with aluminum enclosure
  J = Integral Mount Transmitter with stainless steel enclosure

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2)Description

The Micro Motion model 22**S*(H or K)***3**** Transmitter is integrally mounted to a Micro Motion Coriolis Meter.

The model 22**S*(H or K)***3**** integral mount transmitter system architecture consists of two circuit boards, which are encapsulated into a potting shell. The encapsulated assembly makes a 9-wire connection to the Micro Motion Coriolis Meter via a fixed 9-wire cable. Attached to the encapsulated assembly, by two mounting screws, is a User Interface (UI) that contains an optional LCD display and temporary service connections.

The model 22**S*(H or K)***3**** has one sets of two screw terminals for connecting multifunctional wires providing both I/O communication and power input

The enclosure material is either aluminum with blue paint or stainless steel.

The enclosure has two conduit openings for customer wiring to power terminals and I/O signaling however, only one conduit opening will be used and one conduit opening will be provided with an approved blanking plug. A chassis ground terminal is located both inside the power terminal compartment and also external on the housing.

Amendment 1 to Certificate of Conformity IECEx BVS 08.0042 X incorporates the new Output options 5 and 6 for the installation of the SMART Wireless THUM Model 775 marked as Ex nA IIC T4 (Certificate of Conformity IECEx BAS 09.0058). The THUM comes pre-installed from the factory. The denomination is 22**S*(5 or 6)***3****.

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3) Electrical Parameters

3.1 Input Circuit (terminals 1-2)	DC	28	V
		0,56	W
3.2 Output circuits to sensor:			
3.2.1 Drive circuit (J4 pins 7-8)			
voltage	DC	10,5	V
current		80	mA
3.2.2 Pick-off circuit (J4 pins 3-6)			
voltage	DC	12,6	V
current		4,29	mA
3.2.3 Temperature circuit , receptacle 1,2 and 9			
voltage	DC	12,6	V
current		3,31	mA
3.3 Ambient temperature range	Ta	-40°C to +60°C	

4) Marking

-40 °C ≤ Ta ≤ +60 °C

- type	- type of protection
2200SI(H or K)*1*3**** With Aluminum Housing	Ex nA II T4
2200SJ(H or K)*1*3**** With Stainless Steel Housing	Ex nA II T4
2200SI(5 or 6)*1*3**** With Aluminum Housing	Ex nA IIC T4
2200SJ(5 or 6)*1*3**** With Stainless Steel Housing	Ex nA IIC T4

5) Special condition for safe use/Installation instruction

5.1 The permissible ambient temperature range for the transmitter is -40 °C up to +60 °C. The use of the transmitter at an ambient temperature under - 20 °C is only admissible, if the cables and cable entries or conduit entries are suitable for that temperature and use.

5.2 The cable entries or conduit entries shall have a degree of protection of at least IP54 for use in category 3G

5.3 The user interface module must not be disconnected from the encapsulated assembly unless the unit has been de-energized or the area is known to be safe.

5.4 The HART and Temporary Service Port connections are not available for customer use. The terminals are covered by a plug and labeled “Factory Use Only”. When the service port is utilized by service personnel for upgrade purposes, the circuits are protected from incidental damage potentially caused by non-I.S. devices temporarily connected to the port.

5.5 For wiring instructions of the SMART Wireless THUM Model 775, see Installation drawing IECEx-D-IS EB-20015946.

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